



Qcut 400 A

Qcut 500 A

Qcut 600 A

Qcut 600^{BOT}

LARGE CUT-OFF MACHINES FOR ALL CUTTING TASKS

**THINK BIG – DISCOVER NEW DIMENSIONS IN
MATERIALOGRAPHIC SECTIONING TECHNOLOGY**

PRODUCT PORTFOLIO – LARGE CUT-OFF MACHINES

QATM SECTIONING TECHNOLOGY FOR LARGE MATERIALOGRAPHIC SAMPLES

QATM's large cut-off machines for materialographic preparation are robust, powerful tools for cutting complex components and large metal pieces. These cutting machines are suitable for industrial applications and offer varying degrees of automation in addition to different cutting capacities. With sectioning in up to five axes, even the most challenging tasks posed on cutting in metallography can be completed.

WHEN IS SECTIONING NECESSARY?

The size and shape of a workpiece may require the material to be divided into segments using a cut-off machine prior to materialographic examination. QATM cut-off machines are the ideal choice for reliable, precise cutting and are the basis for good sample preparation.

LARGE CUT-OFF MACHINES – MADE IN GERMANY



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QCUT 600 BOT

Get the best –

Cutting in five dimensions

- | Max. cut-off wheel diameter: Ø 610 mm
- | Max. sample size: Ø 244 mm
- | Up to 5 automatic axes
- | Fully automatic cutting process
- | Drive power: 15 kW



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QCUT 400 A

Compact and efficient –

Cutting with the small bestseller

- | Max. cut-off wheel diameter: Ø 432 mm
- | Max. sample size: Ø 150 mm
- | Up to 3 automatic axes
- | Optional cross feed, manual or automatic
- | Drive power: 7 kW



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QCUT 500 A

Medium and universal –

Cutting for versatile applications

- | Max. cut-off wheel diameter: Ø 508 mm
- | Max. sample size: Ø 190 mm
- | 3 automatic axes
- | Automatic cross feed
- | Drive power: 15 kW



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QCUT 600 A

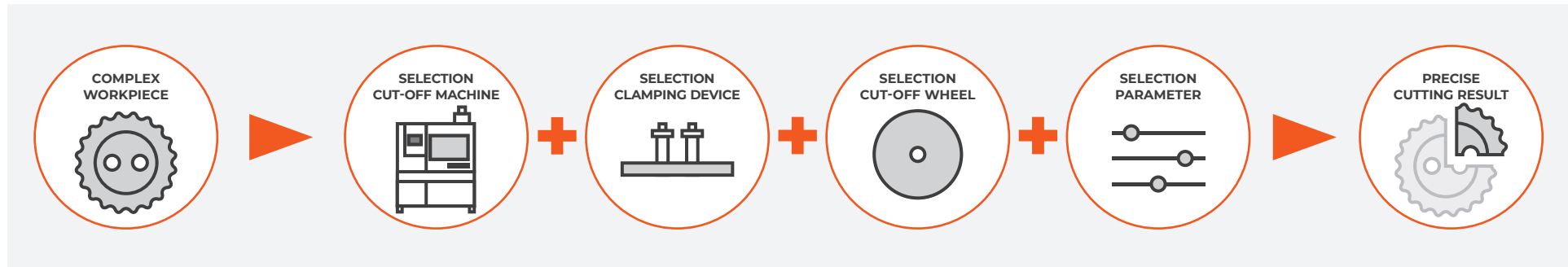
Large and powerful –

Cutting of large workpieces

- | Max. cut-off wheel diameter: Ø 610 mm
- | Max. sample size: Ø 244 mm
- | 3 automatic axes
- | Automatic cross feed
- | Drive power: 15 kW

STRONG COMPONENTS – HIGH-QUALITY CUTTING RESULTS

SECTIONING PROCESS



FAST, POWERFUL, FLEXIBLE – QTOOL CLAMPING DEVICES

Our innovative clamping devices are used to clamp workpieces securely and precisely to ensure exact cutting and grinding processes. The QATM clamping devices of the Qtool series offer a wide range of different clamping devices that have been developed for specific applications and workpiece sizes.

- | Suitable for regular and irregularly shaped samples
- | Fast, repeat-accurate clamping of regularly shaped samples
- | Large range of different clamping tools and systems available



PERFECT CUTTING – CUT-OFF WHEELS FROM QATM

Cutting is more reliable, safe and efficient when processed with the right ingredients: knowledge, care and the right choice of consumables and parameters.

The Qprep range includes specially developed cut-off wheels for a wide variety of materials and requirements.

- | Low thermal influence on the specimen during the cutting process
- | Wet abrasive cutting achieves very fine surface finishes after cutting
- | Optimal cutting shortens the further preparation process

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GET THE BEST – CUTTING IN FIVE DIMENSIONS

QCUT 600 BOT

Cutting in 5 dimensions – the Qcut 600 BOT is a fully automatic cut-off robot. Equipped with patented cutting-edge technology, it opens up new possibilities in the cutting process for materialographic sample preparation.

- Patented technology:** Complex cutting sequences can be performed using 5-axis technology (X, Y, Z, B, C axes) without time-consuming re-clamping of the workpiece.
- Highest degree of automation:** Dynamic cut-off wheel measurement and automatic adjustment of cutting parameters. Multiple cuts on different workpieces can be made in one process.
- High reproducibility:** Repeatable cutting operations are easy to program and perform.
- Multi-Position Process (MPP):** Simultaneous positioning and automatic cutting of different components on the machine table.

www.qatm.com/qcut600bot



WORKPIECE SIZE



SUPERIORITY IN DETAIL

- 1 ERGONOMIC CONTROL PANEL**
 - | Large 12.1" industrial touchscreen with intuitive QATM software
 - | Quick setup, control of all axes with two joysticks
 - | The sliding control panel enables unobstructed working conditions
- 2 ROBUST MACHINE BODY**
 - | Sturdy powder-coated steel construction
 - | Integrable recirculating cooling unit
 - | Automatic central lubrication of the axes
- 3 LARGE ROUND MACHINE TABLE**
 - | Made of stainless steel with integrated longitudinal and cross T-slots
 - | Secure clamping of complex workpiece shapes using the T-slot table or Easy clamping system
 - | Diameter: Ø 600 mm
 - | Load capacity: up to 150 kg
 - | Travel: X: 550 mm, Y: 360 mm, Z: 550 mm
- 4 LARGE CUTTING CHAMBER**
 - | Large sliding door provides easy access and visibility
 - | Side swing door for convenient access to cutting chamber
 - | Large side door for easy cut-off wheel replacement
 - | Break-resistant LED interior lighting
- 5 OPTIMIZED SWIVEL ARM**
 - | Highly efficient cooling system
 - | Increased cutting capacity thanks to parallel guided cut-off wheel guard
 - | Laser alignment aid for easy workpiece positioning
- 6 ROTATION AXIS, B-AXIS**
 - | Rotation range 360°, with combined C-axis 200°
 - | Positioning accuracy: ±0.1°
- 7 OPTIONAL ROTATION AXIS, C-AXIS**
 - | Rotation range: max. 360°
 - | Removable modular rotation axis
 - | Clamping capabilities can be expanded with a lathe chuck or other clamping devices

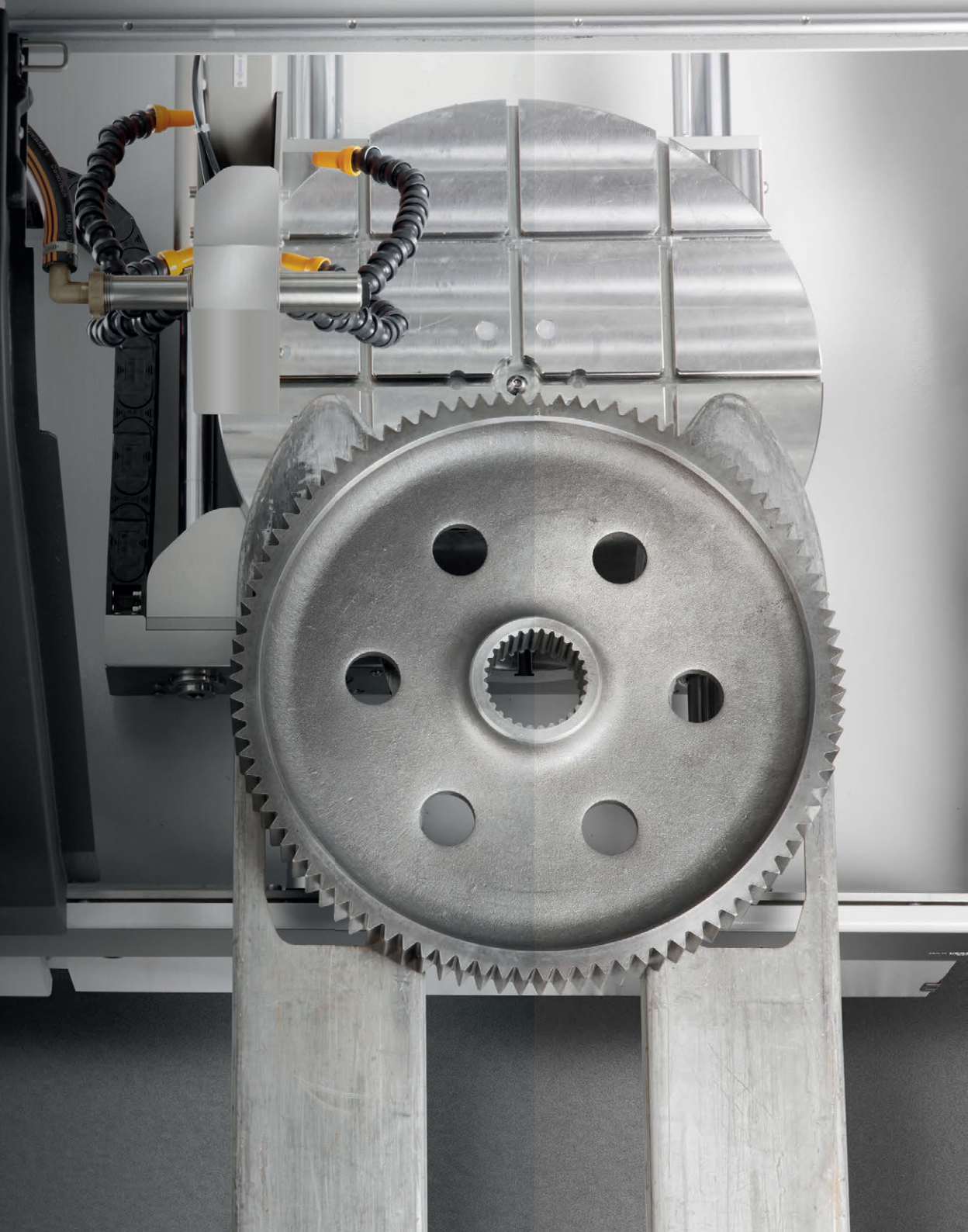




FREE ACCESSIBILITY

FOR LARGE WORKPIECES

Large workpieces can be placed directly on the machine table by a forklift or crane via the wide sliding door.



Cutting in 5 dimensions

5

C-AXIS (Rotation axis)

- Rotation range: max. 360°, automatic
- Removeable modular rotation axis

1

Y-AXIS (Chop cut)

- Cutting range: 360 mm, automatic
- Rapid traverse up to 80 mm/s.

2

Z-AXIS (Cross feed)

- Travel: 550 mm, automatic
- Cross feed for precise parallel cuts in series

3

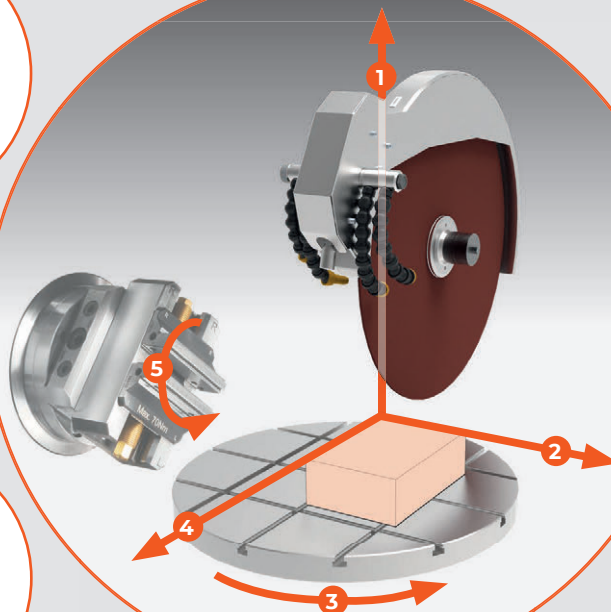
B-AXIS (Rotation axis)

- Rotation range: max. 360°, with combined C-axis 200°, automatic
- Positioning accuracy: $\pm 0.1^\circ$

4

X-AXIS (Travel cut)

- Cutting range: 550 mm, automatic
- Rapid traverse up to 80 mm/s.



QCUT 600 BOT HIGHLIGHTS

IN 5 DIMENSIONS, SECTIONING THE SMALL FROM THE LARGE

With the patented 5-axis technology, workpieces can be cut at any angle precisely, repeatably, quickly, and easily. All axes are finely adjustable and remain vibration-free during the cut-off process – precise work is easier than ever.

The positioning capabilities/movement of the various axes in combination with the clamping systems enables precise cutting of the workpiece without time-consuming re-clamping of the workpiece. All necessary cut-offs can be performed sequentially and automatically – even with large workpieces.

QCUT 600 BOT LOOK CLOSELY FEATURES



STAINLESS STEEL ROTARY TABLE

Spacious rotary table (Ø 600 mm) enables precise work even under heavy loads.

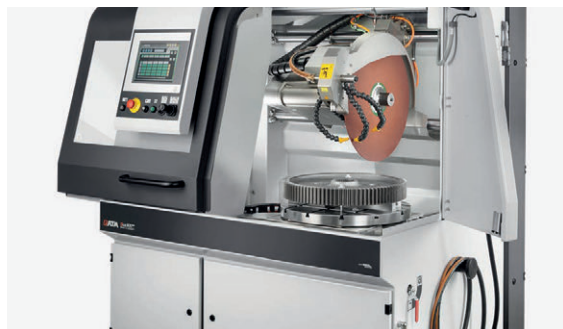
- | Rotation of the machine table (max. 360°) eliminates the need for time-consuming re-clamping of workpieces
- | Can be expanded with a modular adaptable rotation axis (C-axis)
- | Integrated T-slots for the Easy clamping system for quick mounting of clamping tools



AUTOMATIC CUT-OFF WHEEL MEASUREMENT

Dynamic cut-off wheel measurement leads to reproducible cutting results with consistent quality.

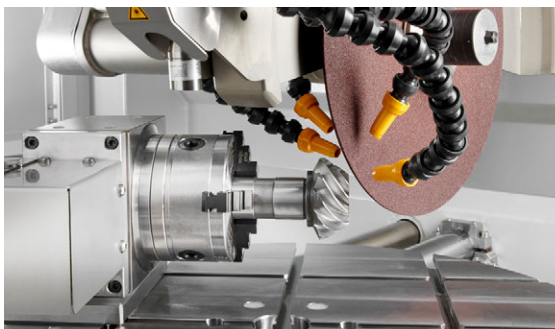
- | Automatic monitoring of the current cut-off wheel diameter
- | Adjustment of cutting parameters after each cut
- | Enables consistent cutting speed and cutting depth



ROBUST MACHINE WITH LARGE CUTTING CHAMBER

Robust, powder-coated steel machine body with large sliding door made of scratch-resistant laminated safety glass and large side door.

- | Machine body with integrable recirculating cooling unit and automatic central lubrication
- | Optimal access to the large cutting chamber with safety interlock that prevents door opening when the cut-off wheel is operating
- | Large side door for easy cut-off wheel replacement



CUTTING OPTIMIZATION

To optimize the cutting quality, the machine automatically detects local material characteristics, such as hardened areas.

- | Cutting force-dependent feed control
- | Cut detection: When starting a new cut, the workpiece is automatically detected and approached at reduced speed
- | Parallel-guided cut-off wheel guard increases the cutting capacity of the cut-off wheel during chop cuts



POWERFUL CUT-OFF WHEEL DRIVE

Precise swivel arm guidance and cut-off wheel cooling.

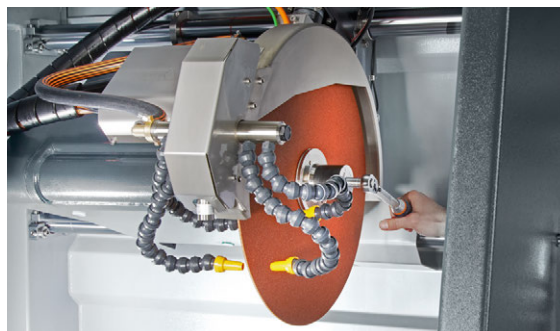
- | Water-cooled main drive with 15 kW drive power
- | Optimal cooling thanks to flexibly adjustable cooling hoses
- | Parallel guided cut-off wheel guard for increased cutting capacity when making cross cuts



INTUITIVE AND EASY OPERATION

Large 12.1" industrial touchscreen with intuitive QATM user software, joysticks, and emergency stop switch.

- | The teach function enables user-friendly programming of cutting positions by manually positioning the machine at each desired location
- | Simultaneous positioning and automatic cutting of different workpieces without re-clamping (Multi-Position Process MPP)



CLEVER DESIGN

Easy cut-off wheel replacement and simple clamping allow you to focus on cutting.

- | Laser alignment for easy workpiece positioning (option)
- | Power clamping nut: easy clamping and loosening of the cut-off wheel



MAXIMUM EASE OF USE

The control panel is movable and can be freely positioned for ergonomic operation during setup and operation of the machine.

- | Programming in close proximity to the workpiece
- | During series operation, the control panel can be moved to the side

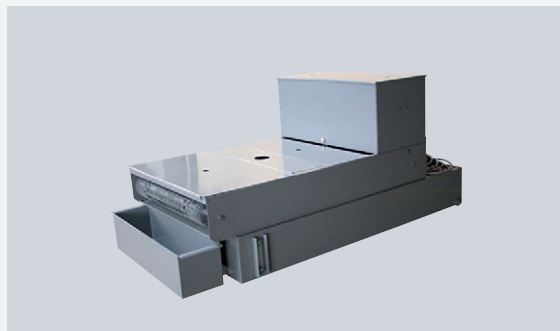
ACCESSORIES



RECIRCULATING COOLING UNIT

Compact, integrable cooling system for standard applications.

- | Can be integrated into the housing and extended
- | Multi-chamber filtration
- | Inlet sieve with filter bag (see consumables)



BELT FILTER SYSTEM

Large cooling and filter system for continuous operation, e.g. in serial applications.

- | Tank size: 285 l
- | Filtering capacity: 100 l/min (referring emulsion)
- | Pump capacity: 100 l/min



CENTRIFUGAL SEPARATOR

Work safety: Working environment with improved air quality.

- | Removes coolant mist
- | Purifies the air and increases visibility
- | Exhaust power 452 or 500 m³/h depending on voltage

COMPACT AND EFFICIENT – CUTTING WITH THE SMALL BESTSELLER

QCUT 400 A

The compact large cut-off machine Qcut 400 A offers high cutting capacity in a minimal footprint. Its automatic travel and cross-cut functions ensures precise, low-contact cuts.

- | Compact design: Enables large and powerful cuts in a small space
- | Best price-performance ratio: Strong cutting performance at a fair price
- | Multi-Position Process (MPP): Simultaneous positioning and automatic cutting of different components on the machine table.

www.qatm.com/qcut400a



WORKPIECE SIZE



SUPERIORITY IN DETAIL

1 ERGONOMIC CONTROL PANEL

- | Large 10.1" industrial touchscreen with intuitive QATM software
- | Quick setup, control of all automatic axes with joystick

2 ROBUST MACHINE BODY

- | Sturdy powder-coated aluminum construction
- | Integrable recirculating cooling unit
- | Automatic central lubrication of the axes

3 COMPACT MACHINE TABLE

- | Made of stainless steel with integrated longitudinal and cross T-slots
- | Secure clamping of complex workpiece shapes using the T-slot table or Easy clamping system
- | Dimensions: 420 x 375 mm (with Z-axis W x D),
550 x 375 mm (without Z-axis W x D)
- | Load capacity: up to 120 kg
- | Travel: X: 345 mm, Y: 200 mm, Z: 150 mm
(manual as standard, automatic optional)

4 LARGE CUTTING CHAMBER

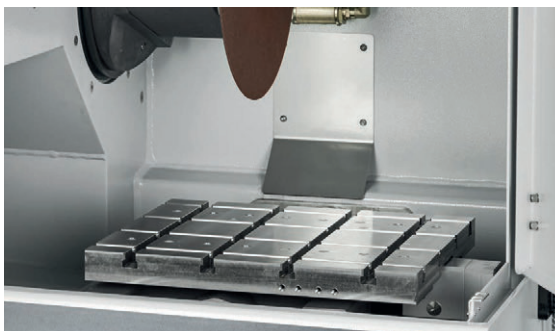
- | Large sliding door provides easy access and visibility
- | Side swing door for convenient access to cutting chamber
- | Side opening on the right for long samples
- | Break-resistant LED interior lighting

5 OPTIMIZED SWIVEL ARM

- | Highly efficient cooling system
- | Increased cutting capacity thanks to parallel guided cut-off wheel guard
- | Laser alignment aid for easy workpiece positioning
- | Innovative quick-change system for easy maintenance and cut-off wheel replacement



QCUT 400 A LOOK CLOSELY FEATURES



STAINLESS STEEL MACHINE TABLE

Spacious machine table enables precise work even under heavy loads.

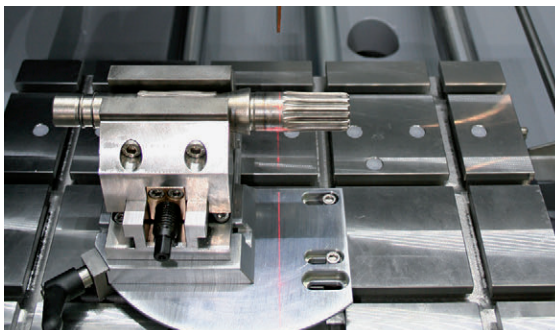
- | Integrated T-slots for the Easy clamping system for quick mounting of clamping tools
- | Efficient and reliable fixation of complex geometries using clamping devices
- | Load capacity up to 120 kg (including clamping devices)



ROBUST MACHINE WITH LARGE CUTTING CHAMBER

Robust, powder-coated aluminum machine body features a large sliding door with scratch-resistant laminated safety glass and convenient side access door.

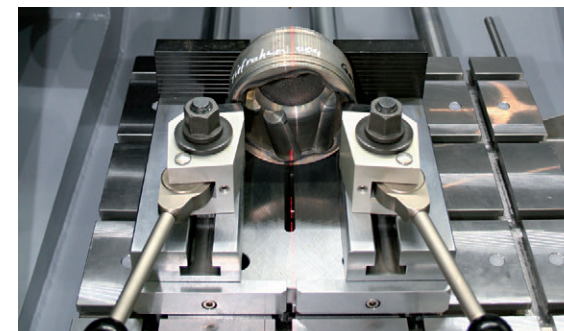
- | Machine body with integrable recirculating cooling unit and automatic central lubrication
- | Large cutting chamber access with safety interlock – doors open only when cut-off wheel is stationary
- | Side opening on the right for long samples



PRECISION CROSS FEED

The table-integrated Z-axis maintains consistent cutting height while the automatic cross feed with serial cutting function delivers precise parallel cuts.

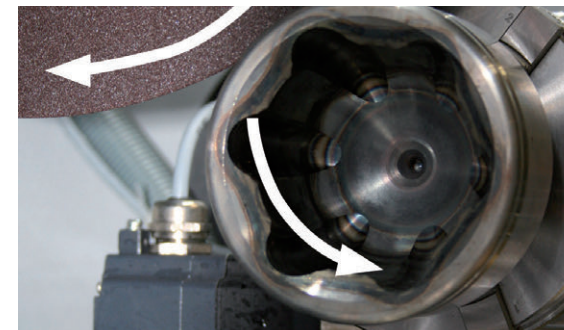
- | Simple and intuitive serial cutting
- | The multi-position process (MPP) allows more complex serial cutting to be carried out



LASER ALIGNMENT

Optional laser alignment projects the cutting line directly onto the workpiece, enabling precise positioning and exact cut placement.

- | Easy positioning of workpieces
- | Precise clamping without much effort



ROTATION TOOL

The optional rotation tool features a vertical rotary feed parallel to the wheel with software-controlled angle input.

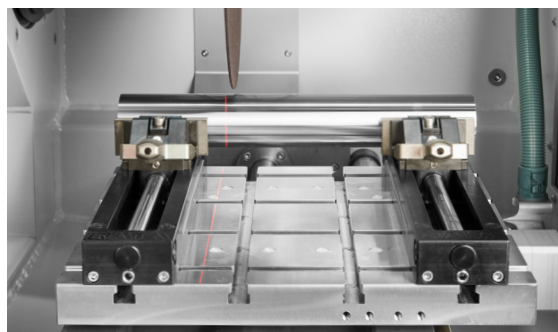
- | More uniform cutting surfaces and cutting quality
- | Cutting time is halved for rotationally symmetrical parts
- | Protects against cut-off wheel run-out



INTUITIVE AND EASY OPERATION

Large 10.1" industrial touchscreen with intuitive QATM user software and joystick.

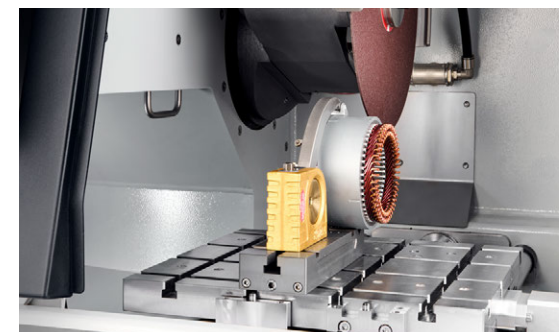
- | Easily manage process parameters and create customer-specific maintenance tasks (200 user programs can be saved)
- | Parameters such as feed rate, travel distance, and cutting force can be changed during automatic operation



PULSED CUTTING

For thick and difficult-to-cut materials, the adjustable automatic pulsed cutting provides gentle sectioning with optimal cooling of the cut interface.

- | Enhanced cutting results for larger components
- | Superior cooling of contact surfaces



CUTTING FORCE DEPENDENT FEED CONTROL (X- AND Y-AXIS)

The feed rate automatically decreases when cutting force reaches a preset limit, protecting the machine, sample, and clamping tools from overloading while ensuring time savings through variable feed control.

- | Time savings thanks to variable feed rate

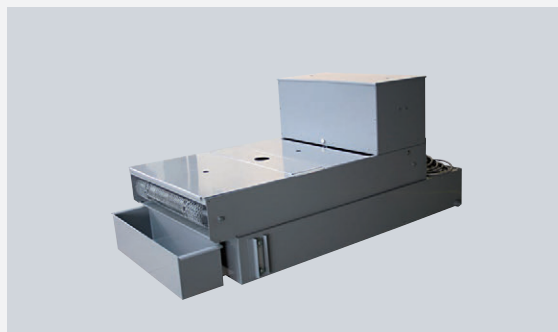
ACCESSORIES



RECIRCULATING COOLING UNIT

Compact, integrable cooling system for standard applications.

- | Can be integrated into the housing and extended
- | Multi-chamber filtration
- | Inlet sieve with filter bag (see consumables)



BELT FILTER SYSTEM

Large cooling and filter system for continuous operation, e.g. in serial applications.

- | Tank size: 285 l
- | Filtering capacity: 100 l/min (referring emulsion)
- | Pump capacity: 100 l/min



CENTRIFUGAL SEPARATOR

Work safety: Working environment with improved air quality.

- | Removes coolant mist
- | Purifies the air and increases visibility
- | Exhaust power 425 m³/h

MEDIUM AND UNIVERSAL – CUTTING FOR VERSATILE APPLICATIONS

QCUT 500 A

The Qcut 500 A is the powerhouse of the large cut-off machine family. Equipped with a highly dynamic axis drive and automatic traverse cut/chop cut functions, the system cuts large components with exceptional precision, minimal contact, and outstanding speed.

- | Fast, powerful cuts: The highly dynamic axis drive allows rapid traverses of up to 80 mm/s and greatly reduces cutting time
- | Versatile applications: Cutting of particularly long samples is easily possible thanks to side openings on both sides
- | Multi-Position Process (MPP): Simultaneous positioning and automatic cutting of different components on the machine table

www.qatm.com/qcut500A



WORKPIECE SIZE



SUPERIORITY IN DETAIL

1 ERGONOMISCHES BEDIENFELD

- | Large 12.1" industrial touchscreen with intuitive QATM software
- | Quick setup, control of all axes with joystick

2 ROBUST MACHINE BODY

- | Sturdy powder-coated aluminum construction
- | Integrable recirculating cooling unit
- | Automatic central lubrication of the axes

3 LARGE MACHINE TABLE

- | Made of stainless steel with integrated longitudinal and cross T-slots
- | Secure clamping of complex workpiece shapes using the T-slot table or Easy clamping system
- | Dimensions: 550 x 500 mm (with Z-axis W x D),
700 x 500 mm (without Z-axis W x D)
- | Load capacity: up to 400 kg
- | Travel: X: 345 mm, Y: 200 mm, Z: 150 mm

4 LARGE CUTTING CHAMBER

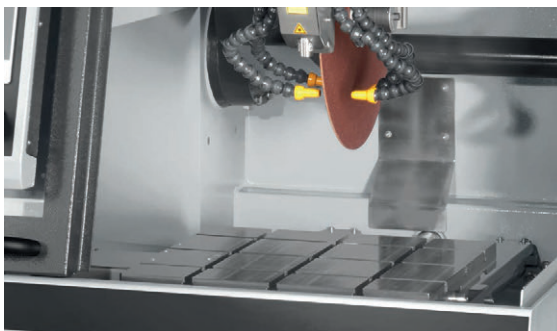
- | Large sliding door provides easy access and visibility
- | Side swing door for convenient access to cutting chamber
- | Side openings on the right and left for long samples
- | Break-resistant LED interior lighting

5 OPTIMIZED SWIVEL ARM

- | Highly efficient cooling system
- | Increased cutting capacity thanks to parallel guided cut-off wheel guard
- | Laser alignment aid for easy workpiece positioning



QCUT 500 A LOOK CLOSELY FEATURES



STAINLESS STEEL MACHINE TABLE

Spacious machine table enables precise work even under heavy loads.

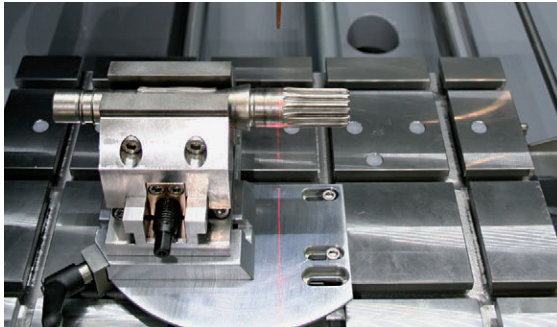
- | Integrated T-slots for the Easy clamping system for quick mounting of clamping tools
- | Efficient and reliable fixation of complex geometries using clamping devices
- | Load capacity up to 120 kg (including clamping devices)



ROBUST MACHINE WITH LARGE CUTTING CHAMBER

Robust, powder-coated aluminum machine body features a large sliding door with scratch-resistant laminated safety glass and convenient side access door.

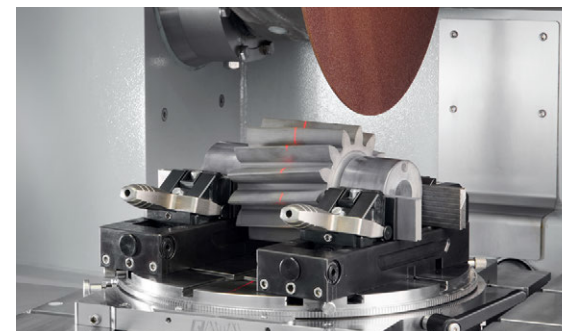
- | Machine body with integrable recirculating cooling unit and automatic central lubrication
- | Large cutting chamber access with safety interlock – doors open only when cut-off wheel is stationary
- | Side openings on the right and left for long samples



PRECISION CROSS FEED

The table-integrated Z-axis maintains consistent cutting height while the automatic cross feed with serial cutting function delivers precise parallel cuts.

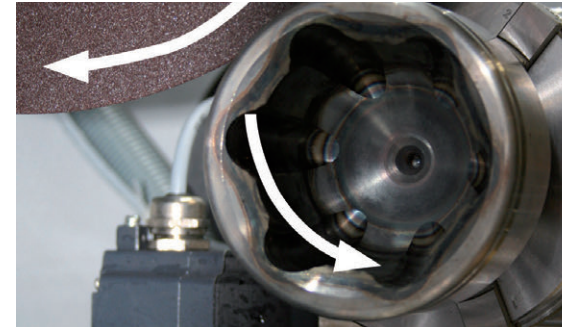
- | Simple and intuitive serial cutting
- | The multi-position process (MPP) allows more complex serial cutting to be carried out



LASER ALIGNMENT

Optional laser alignment projects the cutting line directly onto the workpiece, enabling precise positioning and exact cut placement.

- | Easy positioning of workpieces
- | Precise clamping without much effort



ROTATION TOOL

The optional rotation tool features a vertical rotary feed parallel to the wheel with software-controlled angle input.

- | More uniform cutting surfaces and cutting quality
- | Cutting time is halved for rotationally symmetrical parts
- | Protects against cut-off wheel run-out



INTUITIVE AND EASY OPERATION

Large 12.1" industrial touchscreen with intuitive QATM user software and joystick.

- | Easily manage process parameters and create customer-specific maintenance tasks (200 user programs can be saved)
- | Parameters such as feed rate, travel distance, and cutting force can be changed during automatic operation



PULSED CUTTING

For thick and difficult-to-cut materials, the adjustable automatic pulsed cutting provides gentle sectioning with optimal cooling of the cut interface.

- | Enhanced cutting results for larger components
- | Superior cooling of contact surfaces



CUTTING FORCE DEPENDENT FEED CONTROL (X- AND Y-AXIS)

The feed rate automatically decreases when cutting force reaches a preset limit, protecting the machine, sample, and clamping tools from overloading.

- | Time savings thanks to variable feed rate

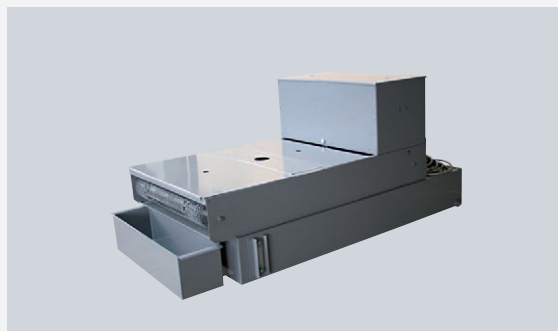
ACCESSORIES



RECIRCULATING COOLING UNIT

Compact, integrable cooling system for standard applications.

- | Can be integrated into the housing and extended
- | Multi-chamber filtration
- | Inlet sieve with filter bag (see consumables)



BELT FILTER SYSTEM

Large cooling and filter system for continuous operation, e.g. in serial applications.

- | Tank size: 285 l
- | Filtering capacity: 100 l/min (referring emulsion)
- | Pump capacity: 100 l/min



CENTRIFUGAL SEPARATOR

Work safety: Working environment with improved air quality.

- | Removes coolant mist
- | Purifies the air and increases visibility
- | Exhaust power 452 or 500 m³/h depending on voltage

LARGE AND POWERFUL – CUTTING FOR INDUSTRIAL APPLICATIONS

QCUT 600 A

The Qcut 600 A represents the flagship of QATM's cut-off machine series, delivering maximum cutting capacity for large and heavy workpieces. Its automatic travel and cross-feed functions enable precise, low-contact cutting while setting new standards in workspace efficiency, operational flexibility, and process automation.

- I Maximum cutting capacity: Samples with a diameter of up to 244 mm can be easily cut
- I Industrial applications: Even the heaviest samples can be placed on the heavy-duty machine table using a forklift or crane
- I Multi-Position Process (MPP): Simultaneous positioning and automatic cutting of different components on the machine table

www.qatm.com/qcut600A



WORKPIECE SIZE

Max.
Ø 150 mm

Max.
Ø 190 mm

Max.
Ø 244 mm

SUPERIORITY IN DETAIL

1 ERGONOMIC CONTROL PANEL

- | Large 12.1" industrial touchscreen with intuitive QATM software
- | Quick setup, control of all axes with joystick
- | The sliding control panel enables unobstructed working conditions

2 ROBUST MACHINE BODY

- | Sturdy powder-coated steel construction
- | Integrable recirculating cooling unit
- | Automatic central lubrication of the axes

3 LARGE MACHINE TABLE

- | Made of stainless steel with integrated longitudinal and cross T-slots
- | Secure clamping of complex workpiece shapes using the T-slot table or Easy clamping system
- | Dimensions: 750 x 600 mm (W x D)
- | Load capacity: up to 400 kg
- | Travel: X: 550 mm, Y: 360 mm, Z: 550 mm

4 LARGE CUTTING CHAMBER

- | Large sliding door provides easy access and visibility
- | Side swing door for convenient access to cutting chamber
- | Large side door for easy cut-off wheel replacement
- | Break-resistant LED interior lighting

5 OPTIMIZED SWIVEL ARM

- | Highly efficient cooling system
- | Increased cutting capacity thanks to parallel guided cut-off wheel guard
- | Laser alignment aid for easy workpiece positioning
- | Water-cooled 15 kW main motor integrated into the swivel arm



QCUT 600 A LOOK CLOSELY FEATURES



STAINLESS STEEL MACHINE TABLE

Spacious machine table enables precise work even under heavy loads.

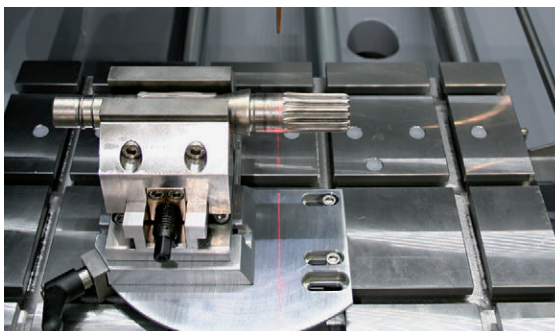
- | Integrated T-slots for the Easy clamping system for quick mounting of clamping tools
- | Efficient and reliable fixation of complex geometries using clamping devices
- | Load capacity up to 400 kg (including clamping devices)



ROBUST MACHINE WITH LARGE CUTTING CHAMBER

Robust, powder-coated steel machine body features a large sliding door with scratch-resistant laminated safety glass and convenient side access door.

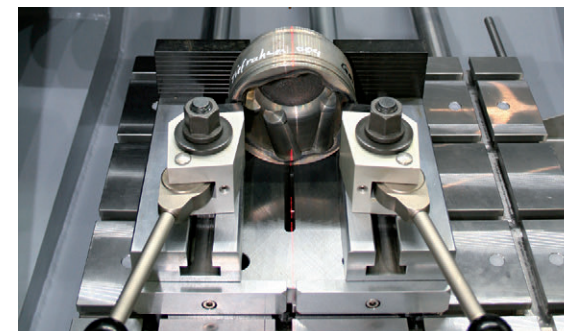
- | Machine body with integrable recirculating cooling unit and automatic central lubrication
- | Large cutting chamber access with safety interlock – doors open only when cut-off wheel is stationary



PRECISION CROSS FEED

The table-integrated Z-axis maintains consistent cutting height while the automatic cross feed with serial cutting function delivers precise parallel cuts.

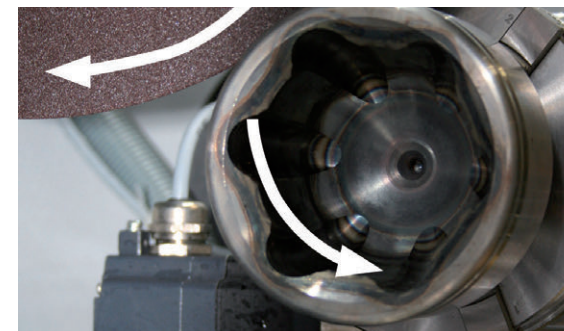
- | Simple and intuitive serial cutting
- | The multi-position process (MPP) allows more complex serial cutting to be carried out



LASER ALIGNMENT

Optional laser alignment projects the cutting line directly onto the workpiece, enabling precise positioning and exact cut placement.

- | Easy positioning of workpieces
- | Precise clamping without much effort



ROTATION TOOL

The optional rotation tool features a vertical rotary feed parallel to the wheel with software-controlled angle input.

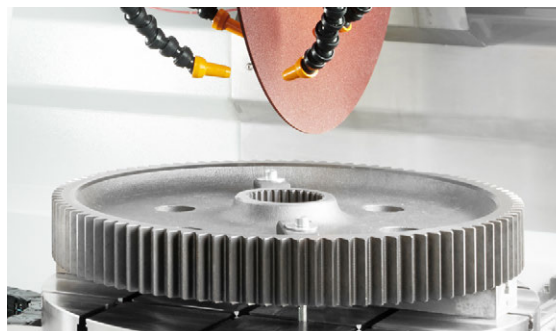
- | More uniform cutting surfaces and cutting quality
- | Cutting time is halved for rotationally symmetrical parts
- | Protects against cut-off wheel run-out



INTUITIVE AND EASY OPERATION

Large 12.1" industrial touchscreen with intuitive QATM user software and joystick.

- | Easily manage process parameters and create customer-specific maintenance tasks (200 user programs can be saved)
- | Parameters such as feed rate, travel distance, and cutting force can be changed during automatic operation



PULSED CUTTING

For thick and difficult-to-cut materials, the adjustable automatic pulsed cutting provides gentle sectioning with optimal cooling of the cut interface.

- | Enhanced cutting results for larger components
- | Superior cooling of contact surfaces



CUTTING FORCE DEPENDENT FEED CONTROL (X- AND Y-AXIS)

The feed rate automatically decreases when cutting force reaches a preset limit, protecting the machine, sample, and clamping tools from overloading.

- | Time savings thanks to variable feed rate

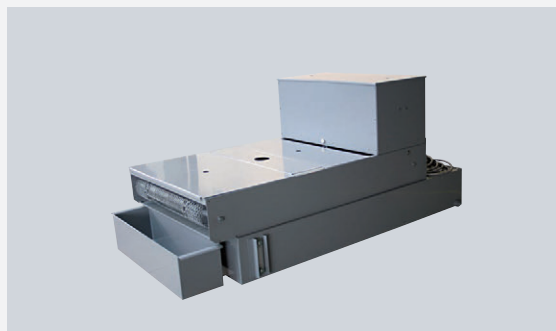
ACCESSORIES



RECIRCULATING COOLING UNIT

Compact, integrable cooling system for standard applications.

- | Can be integrated into the housing and extended
- | Multi-chamber filtration
- | Inlet sieve with filter bag (see consumables)



BELT FILTER SYSTEM

Large cooling and filter system for continuous operation, e.g. in serial applications.

- | Tank size: 285 l
- | Filtering capacity: 100 l/min (referring emulsion)
- | Pump capacity: 100 l/min

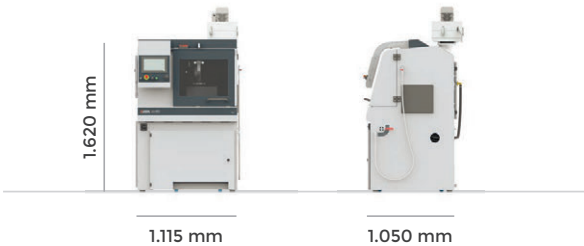
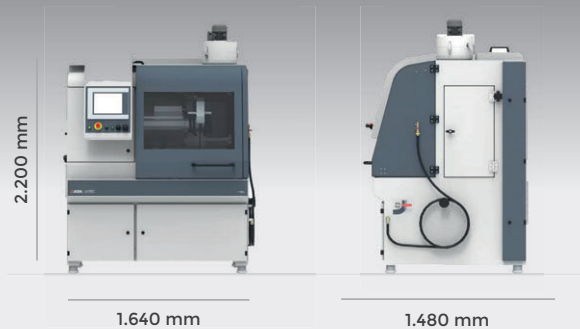


CENTRIFUGAL SEPARATOR

Work safety: Working environment with improved air quality.

- | Removes coolant mist
- | Purifies the air and increases visibility
- | Exhaust power 452 or 500 m³/h depending on voltage

THINK BIG – LARGE CUT-OFF MACHINES IN COMPARISON

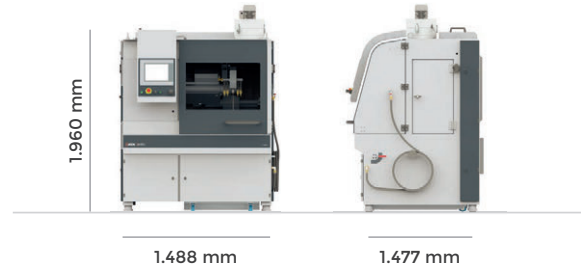
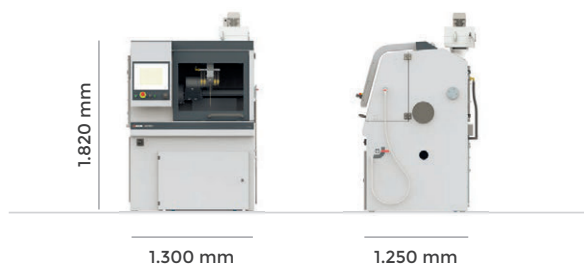


Large cut-off machine

QCUT 600 BOT – GET THE BEST

QCUT 400 A – COMPACT AND EFFICIENT

Machine type	4 axes (X/Y/Z/B) Optional: 5 axes (X/Y/Z/B/C)		2 axes (X/Y) Optional: 3 axes (X/Y/Z)	
Cut-off wheel	up to Ø 610 mm / 24"		up to Ø 406 mm / 16"	
Max. way of cutting wheel into sample	244 mm (cut-off wheel Ø 610 mm)		150 mm (cut-off wheel Ø 406 mm)	
Wheel flange size	Ø 32 mm		Ø 32 mm	
X-axis (travel cut) automatic	550 mm		345 mm	
Y-axis (chop cut) automatic	360 mm		200 mm	
Highly dynamic axis drive	Rapid traverse up to 80 mm/s		Rapid traverse up to 80 mm/s	
Z-axis (parallel cut) automatic	550 mm		150 mm	
Position accuracy Z-axis	0.1 mm		0.1 mm	
B-axis	360°	200°	-	-
C-axis	-	360°	-	-
Table: Dimensions	Ø 600 mm (rotary table)		550 x 375 mm (without Z-axis W x D)	420 x 375 mm (with Z-axis W x D)
Table: Slot width	12 mm		12 mm	
Table: Load capacity	150 kg		120 kg	
Variable speed	1,000–2,400 rpm		1,000–2,900 rpm	
Drive power (main drive)	15 kW, S1 operation		7 kW, S1 operation	
Connection power	30 kVA		17 kVA	
W x H x D	1,640 x 2,200 x 1,480 mm		1,115 x 1,620 x 1,050 mm	
Weight (depending on equipment)	approx. 1,600 kg		approx. 480 kg	



QCUT 500 A – MEDIUM AND UNIVERSAL

QCUT 600 A – LARGE AND POWERFUL

2 axes (X/Y)	Optional: 3 axes (X/Y/Z)	3 axes (X/Y/Z)
up to Ø 508 mm / 20"		up to Ø 610 mm / 24"
190 mm (cut-off wheel Ø 508 mm)		244 mm (cut-off wheel Ø 610 mm)
Ø 32 mm		Ø 32 mm
420 mm		550 mm
280 mm		360 mm
Rapid traverse up to 80 mm/s		Rapid traverse up to 80 mm/s
200 mm		550 mm
0.1 mm		0.1 mm
-	-	-
-	-	-
700 x 500 mm (without Z-axis W x D)	550 x 500 mm (with Z-axis W x D)	750 x 600 mm (W x H)
12 mm		12 mm
400 kg		400 kg
1,000-2,800 rpm		1,000-2,400 rpm
15 kW, S1 operation		15 kW, S1 operation
30 kVA		30 kVA
1,300 x 1,820 x 1,250 mm		1,488 x 1,960 x 1,477 mm
approx. 1,000 kg		approx. 1,600 kg

FAST, POWERFUL, FLEXIBLE

QTOOL- CLAMPING TOOLS

- | Fast, repeat-accurate clamping
- | Regularly shaped workpieces can be efficiently clamped using the quick clamping system

HIGH QUALITY AND ROBUST

- | Specially coated components with extremely high surface hardness and improved corrosion protection
- | Best sliding properties
- | Minimal light reflection when working with the laser
- | Sophisticated concept: Clamping lever can be ergonomically extended
- | Optimum positioning of the component thanks to adjustable back stop

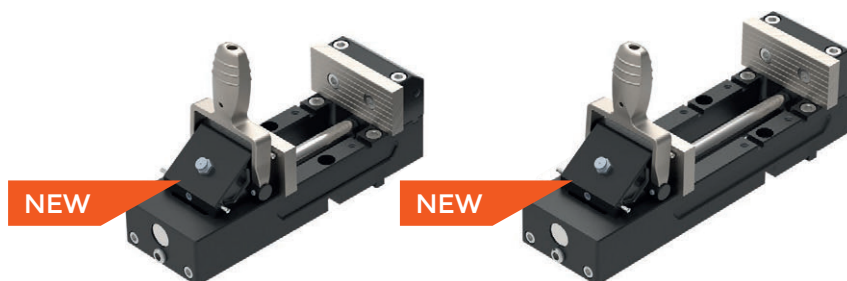
COMPREHENSIVE RANGE OF ACCESSORIES

- | Extremely quick to mount via quick-release fastener on the Easy plates
- | Gas-nitrided clamping jaws for a long service life
- | Can be individually extended with additional jaws (with prisms, bevels, slotted jaws, etc.)

www.qatm.com/qtool



SCHNELLSPANNMITTEL



Qtool 80 – 100

Qtool 80 – 150

QTOOL 80- / QTOOL 80 VARIO-SERIE

HIGHLIGHTS

- | For large components $\varnothing$ 80 mm | W=100 mm
- | Eccentric clamp for fast and powerful clamping
- | Integrated easy function for quick attachment to the table (T-slot nuts also possible)
- | Adjustable rear stop (50 / 100 mm for Qtool 80 - 150)
- | Diverse clamping jaw program
- | Optionally expandable with cross stop

SPECIAL HIGHLIGHTS OF QTOOL 80 VARIO

- | Rear stop can be variably moved freely
- | Jaws can be freely moved laterally
- | Clamping force adjustment High and Low (ca. 4 / 2.5 kN)



Qtool 80 VARIO – 100

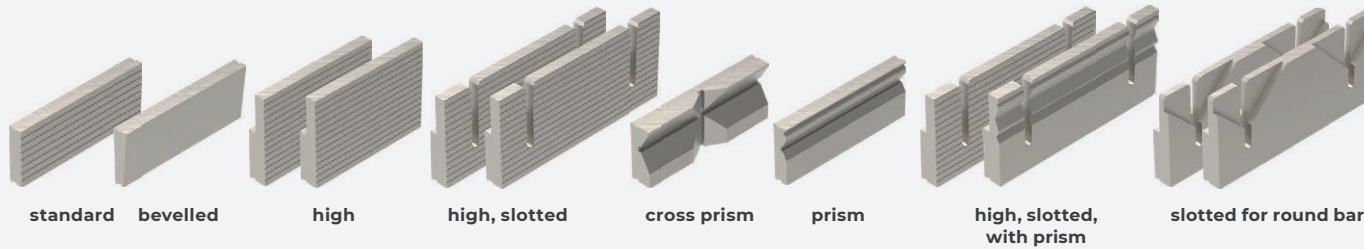
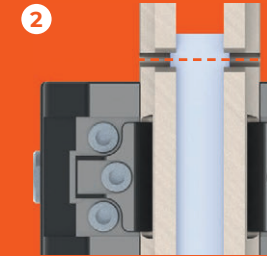
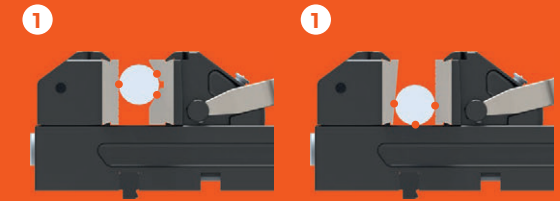
Qtool 80 VARIO – 150

Qtool 80 VARIO – 250

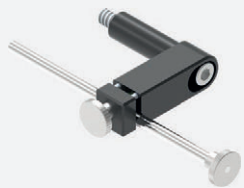
CLAMPING JAWS FOR QTOOL 80 / QTOOL 80 VARIO SERIES

With the wide range of clamping jaws, the Qtools can be individually customized to the components to be cut

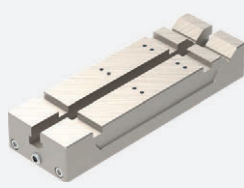
- I Round components ①
- I Large components
- I Clamping the cut-off side of the component ②
- I Longitudinal sections of cylindrical components



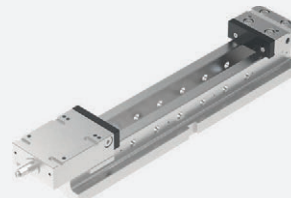
ACCESSORIES



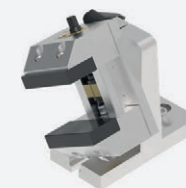
Workpiece stop



Easy multifunctional plate
(height mounting)



Universal power clamping
system 100/540



Angle vice 60



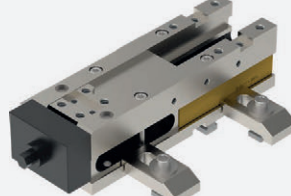
Cross vice 50/100



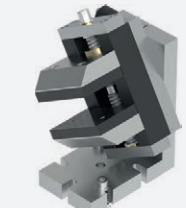
Swivel unit (Qtool 60-80)



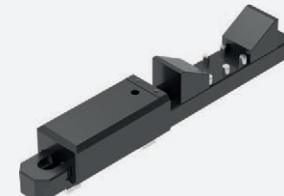
Universal vices



Universal power clamping
system LC 90



Angle vice 80



Clamping rail

PERFECT SECTIONING

QPREP CUT-OFF WHEELS

Significant properties for cut-off wheels are wear (i.e., abrasion resistance), long lifetime and cutting performance. Characteristics of the wheel composition are the abrasive used (aluminum oxide, silicon carbide, diamond, cubic boron nitride (CBN)) and the bond type (metal, resin or rubber). The goal of any cut is to separate the material with minimal deformation and temperature effect. For a clean cut, the abrasive particles and bond type of the cut-off wheel should be matched to the material being cut.



QPREP PREMIUM CUT-OFF WHEELS OFFER THE OPTIMAL SOLUTION FOR A WIDE RANGE OF APPLICATIONS.

- | Achieve a fine cutting surface
- | Wide range of cut-off wheels for cutting all materials
- | The best cutting function fitting to the material
- | Low deformation and temperature during the cutting process
- | Very good cutting performance with long lifetime

www.qatm.com/premium-cut-off-wheels



RECOMMENDED APPLICATIONS

- | Separation of relevant inspection areas
- | Plane-parallel segmentation of semi-finished products and components
- | Investigation of geological and mineralogical samples

ARBOR SIZE AND WHEEL DIAMETER (MAX.)		
Cut-off machine	Arbor size	Wheel diameter (max.)
Qcut 400 A	32 mm	406 mm/16"
Qcut 500 A	32 mm	508 mm/20"
Qcut 600 A	32 mm	610 mm/24"
Qcut 600 BOT	32 mm	610 mm/24"



PREMIUM SILICON CARBIDE CUT-OFF WHEELS

PRODUCT ADVANTAGES

- | Optimized cutting performance for non-ferrous metals and ductile metals
- | Long lifetime and low wear of the cut-off wheel



PREMIUM ALUMINUM OXIDE CUT-OFF WHEELS

PRODUCT ADVANTAGES

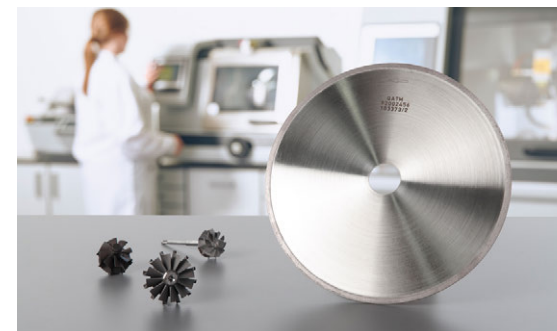
- | Wide range of application for various materials with different hardnesses
- | Long lifetime as well as low wear of the cut-off wheel
- | Premium abrasive particles enable the finest cutting surfaces, which shortens the following grinding steps
- | The synthetic resin bond allows dull abrasive particles to break out evenly during the cutting process
- | Long service life and low wear of the cut-off wheel



PREMIUM DIAMOND CUT-OFF WHEELS

PRODUCT ADVANTAGES

- | Two different bond types (bronze and resin) for a wide range of applications
- | Long lifetime as well as low wear of the cut-off wheel



PREMIUM CBN CUT-OFF WHEELS

PRODUCT ADVANTAGES

- | The good thermal conductivity of CBN abrasives can dissipate heat generated during cutting much more effectively
- | Long lifetime as well as low wear of the cut-off wheel

ACCESSORIES

For inspection as well as effective working with Qprep cut-off wheels, QATM offers a comprehensive range of Qprep cooling and anti-corrosion agents as well as other accessories and aids.



COOLING AND
ANTI-CORROSION AGENTS



MAINTENANCE AND CARE
(Cooling lubricants, cut-off
devices and cut-off wheels)



FILTER SYSTEMS

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VERDER

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**ENABLING
PROGRESS**

